



# STIC Search Report

EIC 1700

STIC Database Tracking Number: 149700

TO: Hoa V Le  
Location: REM 9D61  
Art Unit : 1752  
April 15, 2005

Case Serial Number: 10/772341

From: Usha Shrestha  
Location: EIC 1700  
REMSSEN 4B28  
Phone: 571/272-3519  
usha.shrestha@uspto.gov

## Search Notes



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- I am an examiner in Workgroup:  Example: 1713
- Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

I 1-29  
IT 30-41

10/772, 341

02/06/04

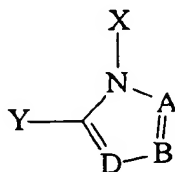
-21-

IN THE CLAIMS:

1. A single-part photographic bleach-fixing composition formed by mixing at least the following:

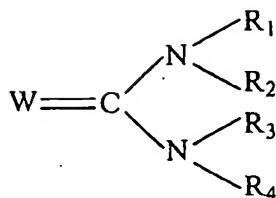
- (a) a bleaching agent comprising an iron-ligand complex;
- (b) a fixing agent comprising a thiosulfate; and
- (c) at least one of the following formula (A) compound or formula (B)

compound:



formula (A),

- wherein each of A, B and D independently represents a nitrogen atom or C-
- 10  $R_5$ , wherein  $R_5$  represents a hydrogen atom, an alkyl group, an aryl group, an amino group, a carboxyl group or a mercapto group; X represents a hydrogen atom, an alkyl group or an aryl group; and Y represents a hydrogen atom, an alkyl group, an aryl group, an amino group, a carboxyl group or a mercapto group; wherein  $R_5$  is substituted or unsubstituted when  $R_5$  is not the hydrogen atom, X is substituted or
- 15 unsubstituted when X is not the hydrogen atom, and Y is substituted or unsubstituted when Y is not the hydrogen atom;



formula (B),

- wherein W represents an oxygen atom, a sulfur atom or N-H; each of R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> independently represents a hydrogen atom, an alkyl group or an aryl group; wherein R<sub>2</sub> and R<sub>3</sub> are optionally bonded together to form a ring, and wherein
- 5 R<sub>1</sub> is substituted or unsubstituted when R<sub>1</sub> is not the hydrogen atom, R<sub>2</sub> is substituted or unsubstituted when R<sub>2</sub> is not the hydrogen atom, R<sub>3</sub> is substituted or unsubstituted when R<sub>3</sub> is not the hydrogen atom, and R<sub>4</sub> is substituted or unsubstituted when R<sub>4</sub> is not the hydrogen atom.

2. The single-part photographic bleach-fixing composition according to
- 10 claim 1, wherein the composition is formed from at least the formula (A) compound, and wherein D represents the nitrogen atom and B represents C-R<sub>5</sub>.

3. The single-part photographic bleach-fixing composition according to claim 2, wherein A in the formula (A) compound represents C-H.

4. The single-part photographic bleach-fixing composition according to claim 1, wherein the composition is formed from at least the formula (B) compound, and wherein W represents the oxygen atom.

5. The single-part photographic bleach-fixing composition according to claim 1, wherein each of  $R_1$ ,  $R_2$  and  $R_3$  of the formula (B) compound represents the hydrogen atom.

6. The single-part photographic bleach-fixing composition according to claim 5, wherein each of  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$  of the formula (B) compound represents the hydrogen atom.

10 7. The single-part photographic bleach-fixing composition according to claim 1, wherein the bleaching agent is mixed in an amount of at least about 0.1 mol/liter, based on the volume of the composition.

8. The single-part photographic bleach-fixing composition according to claim 7, wherein the bleaching agent is mixed in an amount from about 0.1 to about 1.2 mol/liter, based on the volume of the composition.

15

9. The single-part photographic bleach-fixing composition according to claim 8, wherein the bleaching agent is mixed in an amount from about 0.15 to about 1.0 mol/liter, based on the volume of the composition.

10. The single-part photographic bleach-fixing composition according to claim 9, wherein the bleaching agent is mixed in an amount from about 0.25 to about 0.8 mol/liter, based on the volume of the composition.

11. The single-part photographic bleach-fixing composition according to claim 1, wherein the fixing agent consists essentially of the thiosulfate.

12. The single-part photographic bleach-fixing composition according to claim 1, wherein the fixing agent is mixed in an amount of at least about 0.5 mol/liter, based on the volume of the composition.

13. The single-part photographic bleach-fixing composition according to claim 12, wherein the fixing agent is mixed in an amount from about 0.5 to about 4.0 mol/liter, based on the volume of the composition.

14. The single-part photographic bleach-fixing composition according to claim 13, wherein the fixing agent is mixed in an amount from about 1.0 to about 3.0 mol/liter, based on the volume of the composition.

15. The single-part photographic bleach-fixing composition according to claim 14, wherein the fixing agent is mixed in an amount from about 1.5 to about 2.5 mol/liter, based on the volume of the composition.

16. The single-part photographic bleach-fixing composition according to claim 1, wherein the composition is further formed by mixing a sulfite.

17. The single-part photographic bleach-fixing composition according to claim 16, wherein the sulfite is mixed in an amount of at least about 0.2 mol/liter, based on the volume of the composition.

18. The single-part photographic bleach-fixing composition according to claim 17, wherein the sulfite is mixed in an amount from about 0.2 to about 3.0 mol/liter, based on the volume of the composition.

19. The single-part photographic bleach-fixing composition according to claim 18, wherein the sulfite is mixed in an amount from about 0.4 to about 2.5 mol/liter, based on the volume of the composition.

20. The single-part photographic bleach-fixing composition according to claim 19, wherein the sulfite is mixed in an amount from about 0.8 to about 2.0 mol/liter, based on the volume of the composition.

21. The single-part photographic bleach-fixing composition according to claim 1, wherein the at least one of the formula (A) compound or formula (B) compound is mixed in an amount from about 0.01 to about 5.0 mol/liter, based on the volume of the composition.

5           22. The single-part photographic bleach-fixing composition according to claim 21, wherein the at least one of the formula (A) compound or formula (B) compound is mixed in an amount from about 0.05 to about 2.0 mol/liter, based on the volume of the composition.

23. The single-part photographic bleach-fixing composition according to  
10 claim 22, wherein the at least one of the formula (A) compound or formula (B) compound is mixed in an amount from about 0.10 to about 1.0 mol/liter, based on the volume of the composition.

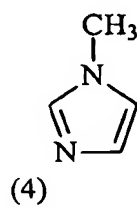
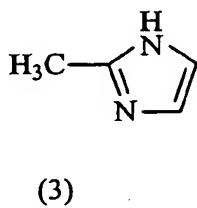
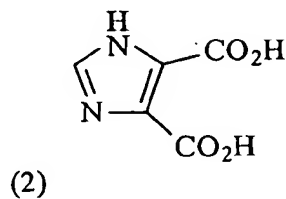
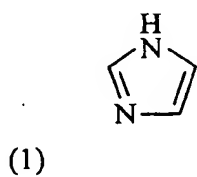
24. The single-part photographic bleach-fixing composition according to claim 1, wherein the pH of the composition is from about 3.5 to about 7.5.

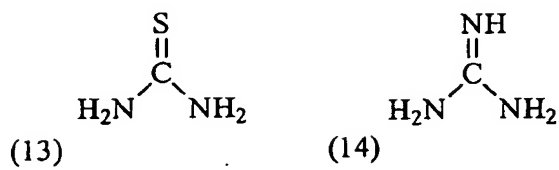
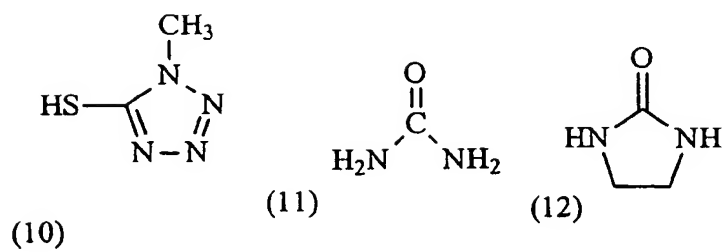
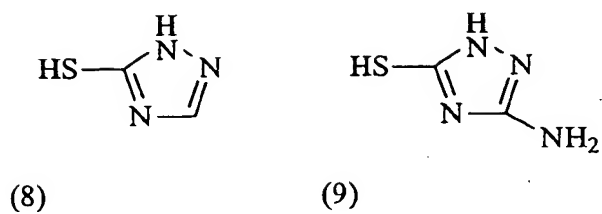
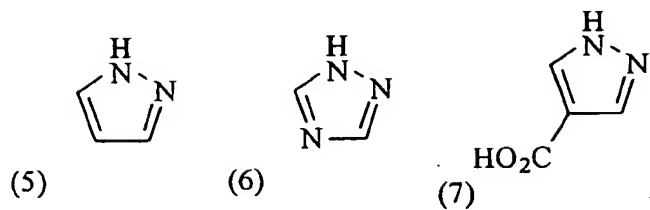
15           25. The single-part photographic bleach-fixing composition according to claim 24, wherein the pH of the composition is from about 4.0 to about 7.0.

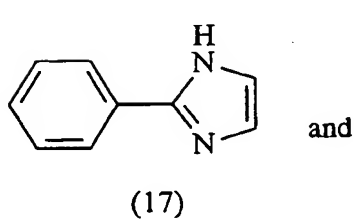
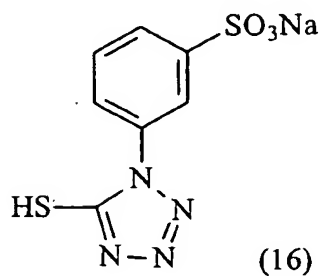
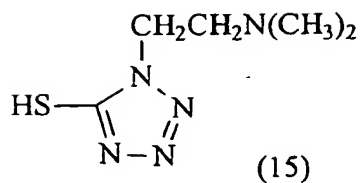


26. The single-part photographic bleach-fixing composition according to claim 25, wherein the pH of the composition is from about 4.5 to about 6.5.

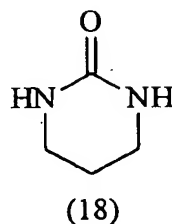
27. The single-part photographic bleach-fixing composition according to claim 1, wherein the at least one of the formula (A) compound or formula (B) compound comprises a compound selected from the group consisting of the following compounds (1) to (18) and mixtures thereof:







and



28. The single-part photographic bleach-fixing composition according to claim 27, wherein the at least one of the formula (A) compound or formula (B) compound comprises a compound selected from the group consisting of compounds (1), (6), (11) and mixtures thereof.

29. The single-part photographic bleach-fixing composition according to claim 1, wherein the composition is in the form of a concentrate.

30. A method for processing a photographic material, comprising contacting the photographic material with the single-part photographic bleach-fixing composition according to claim 1.

31. The method according to claim 30, wherein the single-part  
5 photographic bleach-fixing composition is in the form of a concentrate, and the concentrate is diluted prior to contact with the photographic material.

Access DB# 149790

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: HOA VAN LE Examiner #: 60626 Date: 04/07/05  
Art Unit: 1752 Phone Number 301(571) 272-1332 Serial Number: 10/772,341  
Mail Box and Bldg/Room Location: REM 9D61 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
Please provide a detailed statement of the search topic; and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. known. Please attach a copy of the cover sheet, pertinent claims, and abstract.  
SCIENTIFIC REFERENCE BR  
Sci & Tech Inf. Ctr

Title of Invention: \_\_\_\_\_  
Inventors (please provide full names): please see the attached  
Earliest Priority Filing Date: \_\_\_\_\_  
APR 4 REC'D  
Pat. & T.M. Office

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

please search for compounds of the general formulas A and B with some of them being identify in claim 27.

The compounds are for use in (1) photographic art  
(2) in BLEACH, FIX, BLEACH-FIXING  
BLEACHING - FIXING, BLEACH - FIX, BLIX or BLIXING (solution or composition, or liquid or solid or tablet or concentrate).

Thank you.